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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,640	06/27/2003	Charles E. Goodman	BOEI-1-1185	8352

7590 09/10/2004	**EXAMINER**
Dale C. Barr, Esq.	GUTIERREZ, ANTHONY
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Seattle, WA 98104	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/608,640	GOODMAN ET AL.
	Examiner	Art Unit	
	Anthony Gutierrez	2857	*ar*

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _27 June 2003_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-42_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-42_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _27 June 2004_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _6/27/03_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to because Figure 4. contains only

identification numerals and not actual text within the boxes of the flow diagram.

Specification

2.   The abstract should not refer to purported merits or speculative

applications of the invention and should not compare the invention with the

prior art.

The abstract is objected to because use of the phrase "are provided" in

the first sentence may suggest purported merits and should be deleted.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4.   Claims 1-42 are rejected under 35 U.S.C. 102(a) as being anticipated by

Sato et al. (US Patent 6,574,570 B1).

As to claim 1, Sato et al. discloses a method of analyzing flutter test data

(see Title), the method comprising: reading a plurality of data points (col. 6, lines

24-38), each data point representing an amplitude versus a test time (see Fig. 2b); determining a number "N" of damped sine waves to fit to the plurality of data points (col. 6, line 38-41); and fitting the number "N" of damped sine waves to the plurality of data points (col. 6, lines 41-46. See also Fig. 16).

As to claim 2, Sato et al. discloses using a non-linear "N" damped sine wave fitting algorithm (col. 13, line 67-col. 16, line 30).

As to claim 3, Sato et al. discloses comparing a magnitude of a time history response for a sine wave mode to a total transducer response (col. 1, lines 54-57).

As to claim 4, Sato et al. discloses determining a fit error between a candidate sine wave mode and the plurality of data points; and comparing a magnitude of a time history response for the candidate sine wave mode to the fit error (col. 3, lines 50-61).

As to claims 5-7, Sato et al. discloses applying a Fast-Fourier Transform function to the fit error to estimate a next sine wave mode to be included in the non-linear "N" damped sine wave fitting algorithm (col. 14, lines 5-51, specifically 25-35).

As to claim 8, Sato et al. discloses determining an amplitude factor for the sine wave mode, the amplitude factor being a function of a ratio of an amplitude over an amplitude range of the sine wave mode (col. 14, lines 43-47).

As to claims 9 and 10, Sato et al. discloses determining the sine wave mode to be insignificant when the amplitude factor is less than or approximately equal to a square root of an average error value squared (col. 15, lines 6-15).

As to claim 11, Sato et al. implies reading a first plurality of data points corresponding to a first test sensor; and reading a second plurality of data points corresponding to a second test sensor (col. 6, lines 47-60 and Fig. 9).

As to claims 12-22, in view of the reference as applied to claims 1-11 above, Sato et al. implies the use of useful sets of data points in the method (See Fig. 10, and col. 9, line 47-col. 11, line 44).

As to claims 23-42, in view of the reference as applied to claims 1-11 above, Sato et al. further discloses the use a computer and implies the use of a machine-readable medium having instructions stored thereon for execution by a processor to perform the method by disclosing the use of a personal computer (PC) (col. 6, line 36-43).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,582,183 B2 to Eveker et al. teaches a method for flutter control that involves Fourier coefficients and root mean square values.

US Patent 6,195,982 B1 to Gysling et al. teaches a method for flutter control involving Fourier decomposition and teaches that multiple proximity sensors are important when controlling higher-order forward traveling mechanical modes with high natural frequencies (See col. 7, lines 45-48).

US Patent 5,610, 837 to Murphy, teaches a method for vibrational testing that includes all the limitations of at least claims 1 and 2 of the Applicant's
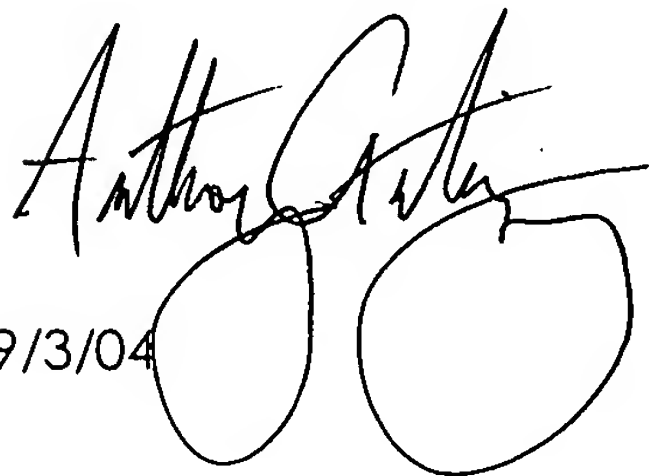
claimed invention, including the use of nonlinear least squares techniques and amplitude ratios (See col. 5, line 60-col. 7, line 11).

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Gutierrez whose telephone number is (571) 272-2215. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Gutierrez

9/3/04

MARC S. HOFF
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